Chapter 13
Public Services and Utilities

This section addresses existing conditions and potential impacts on public services and utilities in the North Bend area. Public services include police, fire, and emergency medical services. Utilities include electric, telecommunications, natural gas, water supply, stormwater drainage, sanitary sewer and solid waste services. The public utilities analysis study area, shown in Figure 13-1, includes the Upper and Lower Sites and conveyor line. Additional details related to public services and utilities are included in Appendix L.

13.1 Existing Conditions

13.1.1 Public Services

13.1.1.1 Police

The North Bend Sheriff's station at 201 Main Street in North Bend is a substation of the King County Sheriff's Office, which provides police services throughout King County. Five officers work out of the North Bend office, which is one of four stations in North King County. Officers are available from other stations as needed.

13.1.1.2 Fire and Emergency Medical Services

Eastside Fire and Rescue currently serves a 210-square-mile area, covering the local residents north of Maple Valley to Duvall, and eastward from Bellevue to Snoqualmie Pass. There are 16 substations inside this area, with 250 employees. North Bend Substation 251, at 122 West Second Street has a staff of 16 career firefighters and 12 reserves. The substation is equipped with two fire engines, two aid cars, and one air-support vehicle.

Snoqualmie Valley Hospital plans to open by May 1, 2001, as a 24-hour acute care hospital. The hospital plans to expand services as funds become available, and expects to have a 24-hour emergency room by January 2003. The hospital is located in Snoqualmie, less than 10 miles from the project site. Emergency services are currently available at the hospital through the Meadowbrook Clinic Urgent Care. Emergencies that occur after hours, or are of a more serious nature, can be brought either to Overlake Hospital in Bellevue (approximately 25 miles), or can be brought from Snoqualmie Hospital by helicopter to Harborview Hospital in Seattle (approximately 35 miles).

13.1.2 Utilities

13.1.2.1 Electricity

Electrical power in the North Bend area is provided by two utility distributors: Puget Sound Energy (PSE) and Tanner Electric Company (Tanner Electric). PSE provides electricity, natural gas, and energy-related services to more than 1 million customers in 11 counties within Washington State. PSE supplies approximately 95 percent of the power used in North Bend. PSE operates the only substation in North Bend, a 25-megawatt (MW) facility at the intersection of Thrasher Avenue and SE 120th Street.

Tanner Electric is a smaller utility distributor headquartered in North Bend that supplies electricity to portions of King and Pierce Counties. Tanner Electric distributes power from PSE's substation through an 8-MW circuit. Tanner Electric is constructing a new 25-MW substation on Alm Way, west of PSE's existing substation. The substation has capacity to expand to a 50-MW facility when the need arises. The new 25-MW facility is expected to be operational in December 2001. When it comes online, the substation will have a maximum usage of 8.2 MW, about one-third of the capacity of the substation. PSE has indicated that the new Tanner Electric substation will relieve pressure from its substation, which is currently being used at near full capacity.

Underground and aboveground power distribution lines service residences and businesses in the area. An underground power distribution line, owned by PSE, enters the Upper Site from a point near the Washington State Patrol Fire Training Academy and runs along SE Grouse Ridge Road (Figure 13-1) (PSE, 1999). A Bonneville Power Administration (BPA) utility transmission line runs through the southern border of the Upper Site; this 345-kV line runs between Rocky Reach Dam and Maple Valley. Eight power line towers are within the Upper Site boundary. The double circuit towers have conductors on one side and are approximately 1,200 feet apart.

13.1.2.2 Fuel

Most households in North Bend have natural gas service. The distribution systems are owned and operated by PSE. A 4-inch gas main is located along 468th Avenue SE and terminates at Seattle Truck Town East, near Exit 34. The gas line does not enter into the boundaries of the Upper or Lower Sites. Propane is commercially available in the area. Gasoline and diesel fuels are distributed via bulk suppliers and commercial service stations in the immediate vicinity.

13.1.2.3 Telecommunications

AT&T operates a fiber-optic cable line that runs through both the Lower and Upper Sites (Figure 13-1). Two 1-inch-diameter ducts are buried at

a depth of 4 feet. The second duct is used by WorldCom. The fiber-optic cable line has been in place for almost 10 years and is described as an extremely high traffic cable.

13.1.2.4 Water, Sanitary Sewer, and Stormwater

The North Bend Public Works Department provides water, sanitary sewer, and stormwater utility services to the City of North Bend but not to the project site. The project site is in the service area of the Sallal Water District, a small private organization. As such, it is unable to provide water for the project's processing needs due to limited capacity. The Sallal Water District could run new piping to the site and provide basic potable water. Further analyses regarding water impacts are included in Chapter 6, Water.

13.1.2.5 Solid Waste

Meridian Valley Disposal provides solid waste service to both commercial and residential facilities in North Bend. Municipal-type solid wastes are hauled to either the Cedar Hills Landfill or to the Factoria Transfer Station. Construction waste is hauled to the Black River Transfer Station in Renton.

13.2 Environmental Impacts

13.2.1 Construction Impacts

13.2.1.1 Alternative 1–No Action

No construction impacts would occur under Alternative 1.

13.2.1.2 Alternatives 2, 3, and 4 (Including Limited Lower Site Mining)

Public Services

Construction activities associated with the Action Alternatives could create a minor increase in workload for the North Bend Sheriff's office. There could be a potential for theft-related calls depending on how well the site would be secured and the value of equipment and tools and machinery that could be used during construction. Other emergency services (e.g., fire and medical) could be required during construction, but given the temporary nature of the construction phase, these potential impacts are considered minimal.

Utilities

Utility requirements for the site during construction would be minimal. During construction, the relocation of utilities could temporarily interfere with utility service to properties in the site vicinity. These service

interruptions, if any, would be temporary and typically less than a day in duration. Therefore, potential construction impacts are considered negligible.

13.2.2 Operation Impacts

13.2.2.1 Alternative 1–No Action

No operation impacts would occur under Alternative 1.

13.2.2.2 Alternative 2–Proposal: Lower and Upper Sites Mining (Including Limited Lower Site Mining)

Public Services

Police. The impact on the North Bend Sheriff's office under Alternative 2 would be low because site operations are not expected to require police response. If necessary, officers from other Sheriff's stations throughout King County could assist in the event police were needed to respond to an emergency. Impacts on workload are considered low.

Fire and Emergency Medical Services. Increased truck activity could create traffic congestion, which could result in vehicle accidents and affect emergency response times. Site operations create the potential for unique emergency situations, such as heavy equipment accidents and rock slides. Impacts on services would be moderate. Further discussion on traffic congestion and emergency response times are provided in Chapter 14, Transportation.

Utilities

Electricity. Cadman, Inc. estimates that the electrical load for Alternative 2 would be 3.6 MW, with the majority of power used at the Lower Site where sand and gravel processing would occur. The conveyor line that would transfer material down to the Lower Site would require the use of electricity from Phase 4 through Phase 9 of the Proposal. The only expected use of electricity necessary for the Upper Site would be for site lighting.

PSE's existing substation is currently capable of supplying the site's 3.6-MW electricity demand. A new distribution line would be constructed at the west entrance of the Lower Site and tie into existing lines along SE 146th Street. The current distribution lines in this area would not handle the site's demand. An existing PSE underground power line at the Upper Site would need to be removed or relocated before Phase 5, when excavation activities would begin in that area. BPA would require a 50-foot buffer area around the base of each transmission line tower to ensure slope stability around the towers.

Both Tanner Electric and PSE are governed by the Washington Administrative Code, which addresses power quality issues such as

flickering or dimming of power supplies to residences and businesses on the same power grid. PSE control standards also require that none of its customers cause greater than a 2 percent voltage dip to any neighboring customer's service. Impacts on electric services are expected to be low. Further discussion of electrical energy is included in Chapter 8, Energy.

Fuel. Natural gas is the typical fuel used for an asphalt facility batch asphalt rotary dryer. However, the current gas distribution system cannot serve the estimated demand under Alternative 2. Cadman, Inc. has proposed using propane gas as an alternative to natural gas for the asphalt batch facility. A 10,000-gallon propane tank would be installed onsite. Cadman, Inc. is also investigating use of diesel fuel and has already proposed an aboveground, 14,000-gallon fuel tank onsite for fueling vehicles. If diesel fuel is chosen to power production processes, another 15,000- to 20,000-gallon storage tank would be necessary (Cadman, Inc., 1999).

Impacts on diesel fuel and propane gas supplies in the region would be low, as discussed in Chapter 8, Energy. Cadman, Inc. would comply with all applicable regulations regarding the storage and use of propane gas.

Telecommunications. An AT&T and WorldCom fiber-optic cable line would need to be relocated from the Lower Site prior to initial excavation activities during Phase 2, and from the Upper Site prior to Phase 5 activities. In addition to relocating the line, telephone service would need to be supplied to the site. No impacts on these services are expected.

Water Supply, Sanitary Sewer, and Stormwater. The Sallal Water District has indicated that it can extend services to both the Upper and Lower Sites for potable water needs (office and non-process water uses). Potential impacts on the water supply from Alternative 2 are considered to be low. Process water would be obtained from an onsite well. Additional analyses regarding water impacts, including the well, are discussed in Chapter 6, Water. The overall impacts of site operations on water supply are considered minimal.

Sewage generated onsite would be limited to toilets, sinks, and showers in office spaces and maintenance facilities. Cadman, Inc. would use an onsite septic tank and leachfield or portable facilities to handle sewage waste on the Lower Site. Portable facilities would be used at the Upper Site. The onsite septic facilities are expected to have minimal environmental impacts. Alternative 2 would have no impact on public sewer services.

Under Alternative 2, stormwater would be routed to onsite infiltration ponds. No publicly operated stormwater facilities would be used, so there would be no impact on public utilities. Impacts that could result from infiltration of stormwater are discussed in Chapter 6, Water.

Solid Waste. No apparent impacts would be associated with solid waste disposal. Meridian Valley Disposal indicates that it has sufficient capability to provide services for the project.

13.2.2.3 Alternative 3–Lower and Upper Sites Mining (Including Limited Lower Site Mining)

Public Services

The impacts of Alternative 3 on these services would be similar to those of Alternative 2. Impacts may be less, as truck traffic coming to and from the site would no longer be concentrated at Exit 34. Under Alternative 3, traffic would be routed to both Exit 34 and Exit 38 during different phases.

Utilities

The impacts of Alternative 3 on electricity resources would be similar to those of Alternative 2 but would vary somewhat. Electrical power would be required at the Upper Site for sand and gravel (aggregate) processing operations at the completion of extraction from the Lower Site. Additional power would be required for area and building lighting. The concrete and asphalt batch plants would remain in operation at the Lower Site. Electrical service could be extended to the Upper Site from existing lines in the Lower Site or extended from the vicinity of the Fire Training Academy. It is expected that the overall electrical consumption for Alternative 3 would be about 95 percent of the demand under Alternative 2 or about 3.4 MW (due to the lack of the conveyor). A discussion of electrical energy impacts is included in Chapter 8, Energy.

Impacts for the other utilities (i.e., fuel, telecommunications, water, sanitary sewer, stormwater, and solid waste) would be the same as those for Alternative 2.

13.2.2.4 Alternative 4–Upper Site Mining - Exit 38

Public Services

Emergency response time to the Upper Site could moderately increase (by 8 to 12 minutes) over response time to the Lower Site, as vehicles would need to travel over SE Grouse Ridge Road. Truck traffic would be routed only to Exit 38, an intersection with less vehicle traffic than Exit 34. By using only the Upper Site, a buffer would be retained between the site and the surrounding neighborhoods, thereby possibly limiting vandalism and trespassing.

Utilities

The use of electricity under Alternative 4 is estimated to be about 65 percent of Alternative 3, or about 2.2 MW. Electricity requirements would be less because 5 percent less aggregate would be processed and

the conveyor line and concrete and asphalt batch facilities would not be built. A discussion of electrical energy impacts is included in Chapter 8, Energy.

Natural gas, propane gas, or diesel fuel use would be less under Alternative 4 because the asphalt batch plant would not be built. Some fuel would be used, however, to process the gravel before transport offsite.

Alternative 4 would have no impact on public sewer services because wastewater would be disposed of in a septic tank and leachfield on the Upper Site.

Impacts on the other utilities (telecommunications, water supply, stormwater and solid waste disposal) would be the same as those for Alternative 2.

13.2.3 Cumulative Impacts

The North Bend area is experiencing rapid growth, with facilities being planned and constructed in many parts of the community. Growth is also occurring in the immediate area of this proposed project, including a proposed new school and a commercial office park near Seattle Truck Town East. Public services and utilities are expected to continue to grow to match demand from the community.

Relocation of the underground power distribution line and fiber-optic cable line may temporarily disrupt existing services. New locations for these utilities have not been selected, and further evaluation may be required.

13.3 Mitigation Measures

13.3.1 Alternative 1–No Action

No mitigation measures are proposed under Alternative 1.

13.3.2 Alternatives 2, 3, and 4 (Including Limited Lower Site Mining)

13.3.2.1 Public Services

For the Action Alternatives, the following mitigation measures are proposed to minimize potential impacts on public services:

- Fence as appropriate to control access to the site
- Provide security services

- Provide specialized equipment for situations unique to the project, such as for confined space entry, located at the site
- Provide specialized medical equipment and training of emergency response staff

13.3.2.2 Utilities

Electricity

Electrical power systems and sources appear adequate to serve the proposed project, but supply and distribution system designs should ensure that power quality remains unchanged for area consumers. Proposed mitigation measures include:

- Provide power quality controls for major electrically powered equipment.
- Provide centralized power conditioning within the development area, or separate power feeds and power quality controls originating at the power substation.
- For Alternatives 2 and 3, provide variable frequency drive motors for the batch plant process to prevent a large voltage drop when the motors are turned on. In general, transformers should be sized to handle the voltage drop as well as the working load, and should be located as close as possible to each service point.
- Size wire gauge to maximize voltage to the motors.
- Ensure cooperation between Cadman, Inc. and the power supplier to address power quality.

The proximity of the proposed site to the existing PSE and future Tanner Electric substations would minimize voltage fluctuation.

Fuel

All applicable regulations regarding storage and use of propane gas or diesel fuel should be followed.

Telecommunications

The AT&T and WorldCom fiber-optic cable should be relocated from the Lower and Upper Sites in a way that does not interrupt service.

Water

Proposed mitigation measures include:

- Incorporate water-saving measures, such as truck wash water recycling, into daily operations and the batch plant processes.
- Conduct full evaluation of the quality and availability of water for each site use during design, including development of sufficient water storage and recovery to meet all site and process needs.

13.4 Significant Unavoidable Adverse Impacts

No significant unavoidable adverse impacts on public services and utilities are expected as a result of the proposed project.